1. An integrated circuit comprising:

an amplifier formed on a semiconductor die, the amplifier having an output port with an output impedance; and

a bondwire electrically connecting the output port to an external conductor;

wherein the bondwire has a specified self-inductance and is operable to match the output impedance to a desired load impedance.

2. The integrated circuit of claim 1 wherein:

the amplifier is a radio frequency power amplifier.

3. The integrated circuit of claim 1 wherein:

the semiconductor die is a metal-oxide semiconductor die.

4. The integrated circuit of claim 1 wherein:

the semiconductor die is a gallium arsenide semiconductor die.

5. The integrated circuit of claim 1 wherein:

the semiconductor die is a bipolar semiconductor die.

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6. Please cancel claim 6 without prejudice or disclaimer.

7. Please cancel claim 7 without prejudice or disclaimer..

8. An integrated circuit comprising:

an amplifier formed on a semiconductor die, the amplifier having an output port with an output impedance;

a bondwire having a specified self-inductance and electrically connecting the output port to an external conductor; and

a capacitor having a specified capacitance formed on the semiconductor die and electrically connected between the output port and a ground, wherein:

the bondwire and the capacitor are operable to match the output impedance to a desired load impedance.

9. The integrated circuit of claim 8 wherein:

the amplifier is a radio frequency power amplifier.

10. The integrated circuit of claim 8 wherein:

the bondwire, the capacitor and the desired load impedance are jointly operable to resonate at a normal operating frequency of the integrated circuit.

11. The integrated circuit of claim 8 wherein:

the semiconductor die is a metal-oxide semiconductor die.

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12. The integrated circuit of claim 8 wherein:

the semiconductor die is a gallium arsenide semiconductor die.

13. The integrated circuit of claim 8 wherein:

the semiconductor die is a bipolar semiconductor die.

14. Please cancel claim 14 without prejudice or disclaimer.

15. An integrated circuit comprising:

an amplifier formed on a semiconductor die, the amplifier having an output port with an output impedance;

a first bondwire having a first specified self-inductance, and electrically connecting the output port to a first external conductor;

a second bondwire having a second specified self-inductance, and electrically connecting the first external conductor to a node on the die;

a first capacitor having a first capacitance formed on the semiconductor die and electrically connected between the node and a ground;

a second capacitor having a second capacitance embodied on the semiconductor die and electrically connected between the node and a third bondwire, the third bondwire having a third specified self-inductance and electrically connecting the second capacitor to a second external conductor

wherein:

the first, second and third bondwires and the first and second capacitors are operable to match the output impedance to a desired load impedance.

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16. The integrated circuit of claim 15 wherein:

the amplifier is a radio frequency power amplifier.

17. The integrated circuit of claim 15 wherein:

the first capacitor is connected to ground via a further bondwire.

18. The integrated circuit of claim 15 wherein:

the further bondwire connects to a thermal pad formed within the integrated circuit.

19. An integrated circuit comprising:

a semiconductor die;

a first bondwire having a first self-inductance electrically connected to the die and to an external conductor;

a second bondwire having a second self-inductance electrically connected to the die and to the external conductor, wherein:

the first and second bondwires are operable to act as an inductor to form at least a part of a circuit block comprised within the integrated circuit.

20. The integrated circuit of claim 19 wherein:

the circuit block is an analog circuit.

21. The integrated circuit of claim 19 wherein:

the circuit block is a radio frequency circuit.

22. The integrated circuit of claim 19 wherein:

the circuit block is selected from a list consisting of:

an intra-stage match, an input stage match, a tuned circuit, an oscillator, a filter, and a pre-selector for a radio receiver.

23. The integrated circuit of claim 19 further comprising:

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a further bondwire connected between the die and a ground.

24. The integrated circuit of claim 19 further comprising:

a further bondwire connected between the die and a thermal pad.

25. An integrated circuit comprising:

a semiconductor die;

a first bondwire electrically connected to the die and a periphery pad;

a second bondwire electrically connected to the die and the periphery pad, wherein:

the first and second bondwires are operable to act as an autotransformer to form at least a part of a circuit block comprised within the integrated circuit.

26. An integrated circuit comprising:

a semiconductor die;

a first bondwire electrically connected to the die and a first periphery pad;

a second bondwire electrically connected to the die and a second periphery pad, wherein:

the first and second periphery pads are electrically connected, and

the first and second bondwires are operable to act as an autotransformer to form at least a part of a circuit block comprised within the integrated circuit.

27. Please cancel claim 27 without prejudice or disclaimer.

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28. Please cancel claim 28 without prejudice or disclaimer.

29. Please cancel claim 29 without prejudice or disclaimer.

30. Please cancel claim 30 without prejudice or disclaimer.

31. Please cancel claim 31 without prejudice or disclaimer.

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32. An integrated circuit comprising:

an amplifier formed on a semiconductor die, the amplifier having an output port with an output impedance; and

an impedance matching circuit connected between the output port and an external conductor, the impedance matching circuit comprising:

an inductor consisting of a bondwire connecting the output port to the external conductor; and

a capacitor formed on the semiconductor die and electrically connected between the output port and a ground;

wherein the impedance matching circuit matches the output impedance to a desired load impedance.

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33. An integrated circuit comprising:

an amplifier formed on a semiconductor die, the amplifier having an output port with an output impedance;

a first bondwire having a first self-inductance, and electrically connecting the output port to a first external conductor;

a second bondwire having a second self-inductance, and electrically connecting the first external conductor to a node on the die;

a first capacitor having a first capacitance formed on the semiconductor die and electrically connected between the node and a ground; and

a second capacitor having a second capacitance embodied on the semiconductor die and electrically connected between the node and a third bondwire, the third bondwire having a third self-inductance and electrically connecting the second capacitor to a second external conductor

wherein:

the first, second and third bondwires and the first and second capacitors match the output impedance to a desired load impedance.

34. The integrated circuit of claim 33 wherein:

the amplifier is a radio frequency power amplifier.

35. The integrated circuit of claim 33 wherein:

the first capacitor is connected to ground via a further bondwire.

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36. The integrated circuit of claim 33 wherein:

the further bondwire connects to a thermal pad formed within the integrated circuit.

37. An integrated circuit comprising:

a semiconductor die; and

an inductor forming at least a part of a circuit block comprised within the integrated circuit, said inductor further comprising:

a first bondwire having a first self-inductance electrically connected to the die at a first circuit node and to an external conductor; and

a second bondwire having a second self-inductance electrically connected to the die at a second circuit node and to the external conductor.

A2 cont.

38. The integrated circuit of claim 37 wherein:

the circuit block is an analog circuit.

39. The integrated circuit of claim 37 wherein:

the circuit block is a radio frequency circuit

40. The integrated circuit of claim 37 wherein:

the circuit block is selected from a list consisting of:

an intra-stage match, an input stage match, a tuned circuit, an oscillator, a filter, and a pre-selector for a radio receiver.

41. The integrated circuit of claim 37 further comprising:

a further bondwire connected between the die and a ground.

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42. The integrated circuit of claim 37 further comprising:

a further bondwire connected between the die and a thermal pad.

43. An integrated circuit comprising:

a semiconductor die; and

an autotransformer forming at least a part of a circuit block comprised within the integrated circuit, said autotransformer further comprising:

a first bondwire electrically connected to the die and a periphery pad; and

a second bondwire electrically connected to the die and the periphery pad.

44. An integrated circuit comprising:

a semiconductor die;

a first periphery pad;

a second periphery pad electrically connected to said first periphery pad; and

an autotransformer forming at least a part of a circuit block comprised within the integrated circuit, said autotransformer further comprising:

a first bondwire electrically connected to the die and said first periphery pad; and

a second bondwire electrically connected to the die and said second periphery pad.

45. An integrated circuit comprising:

a semiconductor die;

a first periphery pad;

a second periphery pad; and

a transformer to form at least a part of a circuit block comprised within the integrated circuit, said transformer further comprising:

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a first bondwire electrically connected to the die and said first periphery pad; and

a second bondwire electrically connected to the die and said second periphery pad.

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